

IN THE SPECIFICATION

Please replace the paragraph beginning at page 3, line 8 with:

In accordance with a first aspect of the invention, a given user device has associated therewith key pairs  $(s, p)$  and  $(s', p')$  corresponding to respective first and second digital signature protocols. The first digital signature protocol is preferably suitable for “fast” signature generation and has a computational efficiency compatible with the resources of a lightweight user device. The second digital signature protocol may be an arbitrary protocol, and may have a computational efficiency substantially lower than that of the first digital signature protocol. As part of a setup process, an agreement relating to the public keys  $p$  and  $p'$  is signed by both the user device and the intermediary device, and the resulting twice-signed agreement is stored by both the user device and the intermediary device. A first digital signature  $s1$  is generated on a message  $m$  or a hash  $h(m)$  thereof in the user device using the secret key  $s'$  and is sent to the verifier. The verifier in turn sends  $s1$  to the intermediary, and the intermediary checks that  $s1$  is a valid digital signature for the user device. If  $s1$  is valid, the intermediary device generates a second digital signature  $s2$  on  $m$  or  $h(m)$  using the secret key  $s$ , and  $s2$  is then returned to the verifier as a signature generated by the user device.